REMARKS

Reconsideration and reversal of the rejections expressed in the Office Action of September 28, 2009 are respectfully contended in view of the application as amended. The claims have been clarified in response to the 35 U.S.C. 112, second paragraph rejections. This claim language is consistent with original claim 3 in combination with the disclosure of the WO specification; see page 6, lines 17 to 30, and page 4 of the English translation thereof, third full paragraph.

Claims 1 and 2 were rejected under 35 U.S.C. 102(b) as being anticipated by Berger et al., U.S. Patent No. 4,318,968. The Office Action states that Berger et al. teach a method of making a battery wherein expanded metal is provided with a coating to improve electron conductivity (depositing metallic hydroxides) on a base metal prior to the metal being expanded or laminated or sintered. In this regard, the Office Action refers to Figure 1, lines 1 to 17 of the abstract and lines 8 to 58 in column 2.

Please note that the Abstract in Berger et al. is silent on any method for the deposition of a coating. It refers to batteries and the like, wherein: *"The positive electrode (cathode) consists of at least one metallic hydroxide or oxide which can be in solution in the electrolyte ..."*. The remaining portion of the Abstract is directed to the consumption, preactivation or regeneration of the hydroxide or oxide. Figure 1 and its description refer to an anodic liquid 5 which bathes the auxiliary electrode 6 consisting of expanded or fritted nickel, and to the cathode 11 which consists of a fritted nickel plate which is wound around itself, saturated with hydroxided cobalt oxide and titanium oxide and bathing in the alkaline solution 12 acting as electrolyte. In a different version, solution 12 can consist of both the alkaline electrolyte and of metallic hydroxide in solution or in suspension constituting the active material of the cathode, the grid of nickel 11 then acting as auxiliary electrode for collection and passage of electric current. The specification in col. 2, lines 8-58 discloses a cathode consisting of a metallic oxide, hydroxided and either placed in solution in the electrolyte or deposited on an expanded, laminated or sintered metal support such as nickel (lines 10-17); lines 56 to 58 of Berger et al. again refer to the fact that the metallic hydroxides can be deposited on a metal support which is expanded. The anode, on the other hand, is said to be, inter alia, a halide impregnation on a metal support which is a good conductor and spongy, such as nickel or titanium, expanded, laminated or sintered or molded on a conductive metal support (see col. 2, lines 17-29). Further, the collector electrode of the negative electrode

consists of an expanded, sintered or laminated metal, as outlined in col. 3, lines 24-30. No further information is given in respect to the coatings of the positive or negative electrodes.

According to the example shown in the Figure, the cathode 11 consists of a fritted nickel plate which is wound around itself. It is to be assumed that it contains holes in order to provide inlets and outlets for permeating gas. This would be consistent with an "expanded" metal. However, there is no indication in Berger et al. that the coating has been provided on the base metal prior to the metal being expanded, laminated or sintered. In contrast, the first passage in column 2 of Berger et al. indicates that the oxide/hydroxide is deposited on the already expanded metal support; a reversal of such steps is nowhere disclosed or suggested in the reference. Thus, as there is no teaching or suggestion of Applicants' claimed invention based on Berger et al., this rejection is overcome.

Claims 1-4, 12, 13, 15 and 16 were rejected under 35 U.S.C. 103(a) as being unpatentable over Dawson et al., U.S. Patent No. 6,465,121 in view of Berger et al. The Office Action states that Dawson et al. teach a method for manufacturing an electrochemical cell, comprising applying a coating to a closed metal foil, the coating improving at least one of adhesiveness and electron conductivity, and converting the closed metal foil into expanded metal, thereby providing a current collector, followed by additional steps. The Office Action further states that Dawson et al. do not explicitly teach that the metal foil is expanded only after the coating is applied.

Dawson et al. disclose a method for activating electrochemical cells including a number of steps for providing good distribution of the electrolyte within the electrochemical cells. In the construction of a lithium ion bi-cell battery such as shown in Figure 2, a binder material provides a polymeric matrix for each of the counter electrodes, the separator membranes, and the central electrode. The anode commonly includes a current collector laminated with the negative electrode material; typical materials suitable for anodic current collectors include nickel, iron, stainless steel or copper. Preferably, copper can be used as a foil sheet, open mesh or expanded metal or in other form (see col. 4, line 62 to col. 5, line 2). According to col. 6, line 54 to col. 7, line 8 of Dawson et al., a cathode current collector is prepared from an aluminum grid. Its surface (i.e. the surface of the aluminum in the shape of a grid) is prepared by etching the grid in a series of solutions and subsequently coating same with an adhesion promoter.

Applicants respectfully contend that Dawson et al. do not disclose a method for manufacturing an electrochemical cell comprising applying a coating to a closed metal foil

and then converting the closed metal foil into expanded metal, and that Dawson et al. in fact do not teach or suggest that the metal foil is expanded only after the coating is applied. Since Berger et al. also do not teach or suggest the provision of a coating on a base metal prior to the metal being expanded, as outlined above, this rejection is likewise overcome.

Note that it is well established that an Applicant's own teaching is not to be used as prior art. In this sense, Applicants respectfully contend that only after having the invention in mind, a person of ordinary skill in the art would conclude that the coating does not flake off during stretching, which would be quite unexpected and surprising (see e.g., page 3, paragraph 3 of the translation of Applicants' corresponding PCT application). Moreover, another unexpected and surprising effect was observed by the inventors of the present invention, namely that the service life of the punching knives increases during the manufacture of the expanded metal in many cases, which might be due to the fact that usual adhesion promoters are suspensions containing graphite, which act as lubricants for the knives during the punching operation and thus contribute to the prolongation of their service life (see subsequent paragraph in Applicants' corresponding PCT application).

The remaining rejections in the Office Action based on claims 5, 6, 7, 14 and 17 are likewise overcome based on the discussion above.

The Examiner is invited to call the undersigned if any questions arise during the course of reconsideration of this matter.

Respectfully submitted,

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